We claim:

1. A device for detecting and storing digital pictures comprising

   (a) image detector means for the generation of first digital picture data,

   (b) a picture data memory,

   (c) signal processing means including means for generating, from said first digital picture data second digital picture data representing a relatively dark picture and third digital picture data representing a relatively bright picture, and

   (d) means for storing said second and third digital picture data in said picture data memory.

2. A device as claimed in claim 1, wherein said image detector means have a first dynamic range extending over a first number of digits, and said second and third picture data generating means comprising means for reading, from said image detector means, a second number of relatively low significance digits as said second digital picture data, and a third number of relatively high significance digits as said third digital picture data, said second and third numbers being smaller than said first number.

3. A device as claimed in claim 1, wherein said signal processing means further comprise picture balancing means for optimizing the picture data of said dark and bright pictures.

4. A device as claimed in claim 3, wherein said picture balancing means comprise means for providing a digital histogram of data from a previously taken picture and means for balancing said picture data relative to said histogram.

5. A device as claimed in claim 4, wherein said histogram contains color value data.

6. A device as claimed in claim 4, wherein said histogram contains gray value data.

7. A device as claimed in claim 4, wherein said histogram contains brightness value data.

8. A device as claimed in claim 1, and further comprising mixing means for superimposing said dark and bright pictures.

9. A method for detecting and storing digital pictures by means of a digital camera, wherein at least two digital pictures having different degrees of brightness are generated.

10. A method as claimed in claim 9, comprising the step of balancing the gray values of picture data of said pictures with a gray value histogram of a previously taken picture.

11. A method as claimed in claim 9, comprising the step of balancing the color values of picture data of said pictures with a color value histogram of a previously taken picture.

12. A method as claimed in claim 9, comprising the step of balancing the brightness values of picture data of said pictures with a brightness value histogram of a previously taken picture.

13 A method as claimed in claim 9, comprising the step of balancing the contrast values of picture data of said pictures with a contrast value histogram of a previously taken picture.

14. A method as claimed in claim 9, wherein digital picture data of said two digital pictures having different degrees of brightness are mixed to provide superimposed digital pictures.